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Office of Engineering and Technology Announces the Approval of Spectrum Bridge, Inc.'s TV Bands Database System for Operation

ET Docket No. 04-186

The Commission's Office of Engineering and Technology (OET) announces that it has approved Spectrum Bridge, Inc.'s "TV bands database system" to begin providing service to the public on or after January 26, 2012. This database system will support unlicensed radio devices that transmit on unused channels in the spectrum bands used by broadcast television (TV white spaces, or TVWS). The initial operation of this database system will be limited to Wilmington, NC and the surrounding area. Its approval will also be subject to certain additional conditions and requirements as specified herein. This action allows the first authorized deployment of a TV white spaces database system and unlicensed TV bands devices.

The Commission's Part 15 rules (47 C.F.R. § 15.701 *et seq.*) require that unlicensed TV band devices (TVBDs) contact an authorized database system to obtain a list of channels that are available for their operation (*i.e.* channels not occupied by authorized radio services) at their individual locations and operate only on those channels. These devices are required to provide their geographic locations by means of a secure Internet connection to a TV bands database system authorized by the Commission. The database will then return a list of channels available for operation by the device for its reported location.

The FCC rules require that TV bands database systems protect the following radio services: (1) broadcast television stations (including full power, TV translator, low power TV, and Class A stations); (2) fixed broadcast auxiliary service (BAS) links (regular licensed and temporary); (3) receive sites (and received channels) of TV translator, low power TV, and Class A TV stations and multichannel video programming distributors (MVPDs); (4) private land mobile and commercial mobile radio service operations; (5) offshore radio telephone service operations; (6) radio astronomy operations at specific sites; and (7) low power auxiliary service operations (principally licensed and certain approved unlicensed wireless microphone venue sites). Except for MVPD receive sites, sites where licensed wireless microphones are used, and approved unlicensed wireless microphone venues, the necessary protection data will either be extracted by Spectrum Bridge from the Commission's databases or are specified in the rules. Operators of facilities for which information is contained in the Commission's records or provided in the rules do not need to take any action to obtain protection from TV bands devices.

¹ See Letter to Mr. Rodney Dir of Spectrum Bridge dated December 22, 2011. This letter is available in the Commission's EDOCS records system under ET Docket No. 04-186, DA 11-2044.

Operators of MVPD receive sites, wireless microphones users, and operators of temporary BAS links must specifically register their sites to receive protection from TV bands devices. As required under the rules, Spectrum Bridge is providing facilities for registering for these operations through its TVWS database system website at: http://whitespaces.spectrumbridge.com/Main.aspx. The rules provide that responsible parties may request that the Commission approve registrations for protection of venues where unlicensed wireless microphones are used. These requests will be made available for public comment, and the Commission will subsequently review them for approval. We also note that once one or more additional database systems are approved and active, all registrations entered with a given database will be communicated to the other database(s) so that registrations will not need to be entered in multiple databases.

The Commission's registration system for venues where large numbers of unlicensed wireless microphones are used is still under development and is expected to be operational in the coming months. Until this system is operational, we find it necessary to implement an interim plan under which we will use a manual method for submitting and processing requests for registration of unlicensed microphone venues (as described below) and limit the deployment of devices to a single market area. We find this "soft-start" approach useful in that it offers an appropriate opportunity for limiting service while the unlicensed wireless microphone registration system is being developed and also provides an opportunity to further test the concepts of the TVWS operating plan. We are therefore limiting initial service by the Spectrum Bridge database system to any party using certified TVWS devices that are operated in the city of Wilmington, NC and New Hanover County, NC. The Wilmington, NC area is well suited for this initial deployment due to the availability of many TVWS channels and our expectation that its size and population will limit the number of requests for protection of unlicensed wireless microphones to a number we can reasonably process manually. To that end, we are aware that Spectrum Bridge has arranged with various local government and other entities in the city of Wilmington and the surrounding county of New Hanover County, NC to install and operate fixed TVBDs during this "soft-start" of TVWS service. When the Commission's registration system becomes operational, OET will notify Spectrum Bridge and issue a public notice to remove this geographic restriction so that service may be provided nationwide

Registration of Unlicensed Wireless Microphone Venues

Until the FCC registration system is operational, parties seeking to obtain protection for venues where large numbers of unlicensed wireless microphones are used must submit registration requests directly to OET at TVWSinfo@fcc.gov. The "subject" line in the messages for such requests must begin with the phrase: "[Wireless Microphone Registration]," followed by the entity's full name. For example: [Wireless Microphone Registration] Widget Corporation. If OET approves the registration, it will inform Spectrum Bridge to create a registration record for the venue and provide the registrant with a registration number.

OET will process registration requests for venues where large numbers of unlicensed wireless microphones are used in accordance with Section 15.713(h)(9) of the Commission's rules, 47 C.F.R. § 15.713(h)(9). In particular, entities responsible for venues of events and productions/shows that use large numbers of wireless microphones at well defined times that cannot be accommodated in the two channels specifically reserved for wireless microphones and other channels that are not available for use by TVBDs at that location may request protection of such venues through registration. Entities seeking to register eligible event venues are required to certify that they are using the two reserved channels and other channels that are not available for use by TVBDs on which wireless microphones can practicably be used, including channels 7-51 (except channel 37) at the location of the venue. As a benchmark, at least 6 – 8 wireless microphones should be operating in each channel used at such venues (both licensed and

unlicensed wireless microphones used at the event may be counted to comply with this benchmark). Registration requests that do not meet these criteria will not be granted. The Commission will make requests for registration that meet the threshold showing for acceptability available for public comment. Registrations that are granted will be valid for one year, after which they may be renewed. Registrations must include the following information.

- name of the individual or business that owns the unlicensed wireless microphones
- a postal address for the contact person
- an e-mail address for the contact person
- a phone number for the contact person
- coordinates where the wireless microphones are used (latitude and longitude in NAD 83, accurate to +/- 50 m)
- channels used by the wireless microphones operated at the site and the number of wireless microphones used in each channel.

The registrant of an approved venue will then need to use the registration number provided by OET to access the Spectrum Bridge unlicensed wireless microphones registration facility at: http://whitespaces.spectrumbridge.com/Main.aspx to enter scheduling and channel information for the venue.

Additional Public Testing of the Database System's Registration Facilities

In the recently completed public trial of Spectrum Bridge's database system, some concerns were raised with respect to use of the database's registration system. Most of these issues were addressed and corrected as they were reported during the public trial period, and the rest are amenable to correction and will be corrected, as recognized by Spectrum Bridge. However, in addition to those issues, NAB also reports that it experienced "numerous" problems with attempting to register protected entities. Therefore, to ensure that the registration process is functioning properly, we find that it would be beneficial to provide an opportunity for additional testing. We do not, however, believe that an additional formal test cycle with opportunity for submitting comments and replies to the Commission is needed; nor do we find it advisable to simply postpone resolution of existing concerns after the database becomes "live." Rather, to address these issues we are requiring that Spectrum Bridge re-open the registration portion of its test site to the public (the channel calculation portion has remained open) during the period prior to the activation of its database. This will allow parties to further test the system to ensure that it is useable and performing properly. We are also requiring Spectrum Bridge to again activate its comment facilities and respond to entries made there, including by making any additional modifications to its database system that may be needed. Spectrum Bridge is to re-open its trial site facilities for a three-week testing period no later than December 29, 2011 and take appropriate actions to resolve any problems that are reported prior to activation of the system. Spectrum Bridge is to close those testing facilities a week before the permissible database activation date specified above to: (1) afford it time to make any final changes to its database system in preparation for activation; and (2) allow time for any unlicensed wireless microphone venue registrants to enter scheduling data into the database before the system begins providing service to devices.

Questions regarding this Public Notice may be directed to Alan Stillwell at (202) 418-2470 or Hugh L. Van Tuyl at (202) 418-7506.

By the Chief, Office of Engineering and Technology.

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